

Application No.10/694,222
Amendment dated June 19, 2007
Reply to Office action of March 23, 2007

REMARKS/ARGUMENTS

Claims 1 through 8, and 14 have been deleted without prejudice.

The rejection of Claims 1 through 8 has been overcome by the deletion of these claims.

Claims 9 through 13 have been amended to define the present invention more specifically to define a heat energy conversion system for a heating, cooling and venting equipment so as to distinguish clearly from the cited references.

The subject matter of Claim 14 has been incorporated into the amended Claim 13.

New Claims 15, 16 and 17 have been added to define the present invention with the thermopile and heat pipe which are not shown in any of the cited references.

The Examiner is respectfully requested to reconsider the pertinency of the cited references. The crux of the present invention is to provide a heat energy conversion system which is operative for generating a large amount of electrical energy for operating a heating, cooling and venting equipment from heat generated by an operate-on-demand pilot burner or selectively from an external heat source. Whereas the cited references are directed to systems for providing a low voltage for operating the control circuit of a heating equipment by the heat from a constantly on standing pilot burner. A thermocouple is used by the cited references for generating such low voltage generally in the millivolt range which may be stepped up to a magnitude for operating low current control circuits. Even with the step-up transformer in the Maher reference the resulting voltage is not capable of directly driving a high current resistive load of a blower of the

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heating, cooling and venting equipment as in Applicant's present invention.

The system of the present invention is capable of generating electrical energy to operate a heating, cooling and venting equipment. On the other hand, the systems of the cited references are directed to heating systems which are operated by external electrical supply and their systems provide additional low voltage current for operating the control circuit of the heating system. For this reason, when there is no electrical supply to their heating systems, their heating systems simply would not operate. Whereas, the present invention provides the sole electrical supply to operate the heating, cooling and venting equipment and external electrical supply is required. The cited references either considered individually or in combination do not infer or suggest a heat energy conversion system with the thermopile located on the surface of the heating flue wall which may be heated by an operating-on-demand pilot burner or external heat source for providing the sole operating electrical supply for a heating, cooling and venting equipment.

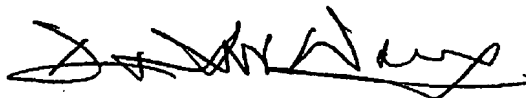
Furthermore, the systems shown in the cited references require the operation of the main burner to provide the heat energy for converting to the low voltage for operating the burner control circuit, while the present invention operates on the heat provided by the operating-on-demand pilot burner which is sufficient to generate the electrical supply to operate the heating, cooling and venting equipment. The concept therein is entirely different than that of the present invention as defined in the claims now submitted. For this reason, the claims are not readable on the cited references.

Favorable consideration of the application as now amended and early passage of it to

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allowance are therefore respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'David W. Wong', with a stylized flourish at the end.

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